AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1 (Currently Amended): A code [[Code]] generator comprising a plurality of storage elements connected in a code-producing series, wherein the output of the last storage element in the series is linked with the input of the first storage element in the series to form a circuit, and outputs and inputs of the storage elements are recursively interconnected with EXOR gates inserted, characterized in that ~~at least one EXOR gate is provided, whose first input is connected with the output of a storage element located in the code-producing series, whose second input is connected with the output of another storage element located in the code-producing series, and whose output is connected with the input of the storage element following the storage element connected with the first input of the EXOR gate in the code-producing series, and that~~ the output of a storage element located in the code-producing series is connected with the input of an inverter, and the output of the inverter is connected with the input of another storage element arranged in the code-producing series,

wherein the EXOR gates comprise a plurality of first EXOR gates, each of whose first input is supplied by a respective output of one of the storage elements located in the

code-producing series, and whose second input is supplied by the respective output of another storage element located in the code producing series, which is spaced a number of storage elements in the conducting direction of the series away from the storage element respectively connected with the first input, which respectively corresponds to a different prime number that is greater than 1.

Claim 2 (Currently Amended): The code [[Code]] generator according to claim 1, wherein an AND gate is connected in a line connecting the second input of [[the]] at least one first EXOR gate and the output of the other storage element located in the code-producing series, so that the output of the AND gate is connected with the second input of the first EXOR gate, the first input of the AND gate is connected with the output of the other storage element located in the code-producing series, and the second input of the AND gate is connected with the output of a code-programming storage element.

Claim 3 (Canceled).

Claim 4 (Currently Amended): A code [[Code]] generator comprising a plurality of storage elements connected in a code-producing series, wherein the output of the last storage element in the series is linked with the input of the first storage element in the series to form a circuit, and outputs and inputs of the storage elements are recursively interconnected with EXOR gates inserted, characterized in that at least one first EXOR

gate is provided, whose first input is connected with the output of a storage element located in the code-producing series, whose second input is connected with the output of another storage element located in the code-producing series, and whose output is connected with the input of the storage element following the storage element connected with the first input of the first EXOR gate in the code-producing series, and that the output of a storage element located in the code-producing series is connected with the input of an inverter, and the output of the inverter is connected with the input of another storage element arranged in the code-producing series ~~according to claim 1~~,

wherein a plurality of code-programming storage elements that are respectively assigned to an AND gate and the at least one first [[an]] EXOR gate is provided and connected in a series comprising a closed circuit, and at least one second EXOR gate is provided whose first input is connected with the output of a storage element located in the code-programming series, whose second input is connected with the output of another storage element located in the code-programming series, and whose output is connected with the input of the storage element following the storage element connected with the first input of the second EXOR gate in the code-programming series.

Claim 5 (Currently Amended): Code generator according to claim 4, wherein each [[an]] AND gate is connected in a line connecting the second input of the corresponding at least one first EXOR gate and the output of the other storage element located in the code-producing ~~code-reproducing~~ series and associated with the

corresponding first EXOR gate, so that the output of each [[the]] AND gate is connected with the second input of the corresponding first EXOR gate, the first input of each [[the]] AND gate is connected with the output of the other storage element located in the code-producing series and associated with the corresponding first EXOR gate, and the second input of each [[the]] AND gate is connected with the output of a storage element used for programming the code-programming series.

Claim 6 (Currently Amended): The code [[Code]] generator according to claim 1 [[5]], wherein a plurality of storage elements used to program the code programming series that are respectively assigned to an AND gate and the at least one first [[an]] EXOR gate is provided and connected in a series comprising a closed circuit, and at least one second EXOR gate is provided whose first input is connected with the output of a storage element located in the code-programming series, whose second input is connected with the output of another storage element located in the code-programming series, and whose output is connected with the input of the storage element following the storage element in the code-programming series connected with the first input of the second EXOR gate ~~in the series~~.

Claim 7 (Currently Amended): The code [[Code]] generator according to claim 1, further comprising at least one connection for at least a second, identically structured

code generator, so that both code generators can be supplied with the same program clock at the same time.

Claim 8 (Currently Amended): A device [[Device]] for sending and receiving encrypted information comprising at least two code generators according to claim 1, wherein the code generators each have at least one connection for simultaneously supplying the code-programming storage elements of all interconnected code generators with the same program clock, so that the code-programming storage elements of all interconnected code generators simultaneously run through all possible state combinations, and are provided with the same programming when the code generators are simultaneously separated from the program clock.

Claim 9 (Currently Amended): The device [[Device]] according to claim 8, wherein the code generators each includes two connections for simultaneously supplying the code-programming storage elements and the storage elements used to program the code-programming storage elements of all interconnected code generators have two independently running program clocks, wherein the storage elements used to program the code-programming storage elements run through all possible state combinations at least once, and the code-programming storage elements of all interconnected code generators simultaneously run through a specific number of all possible state combinations, and that

all interconnected code generators are provided with the same programming after the simultaneous separation of code generators from the program clocks.

Claim 10 (Currently Amended): The code [[Code]] generator according to claim 1, wherein ~~a plurality of EXOR gates is provided whose first inputs are connected with the output of consecutively arranged storage elements located in the code producing series, whose second inputs are connected with the output of other storage elements located in the code producing series and whose~~ respective outputs of the first EXOR gates are connected with the input of the storage element following the storage element connected with the first input of the respective first EXOR gate in the code-producing series.

Claim 11 (Currently Amended): A code generator comprising:

storage elements arranged in a code-producing series in which an output of a last storage element in the series is coupled to an input of a first storage element in the series;

two or more EXOR gates, each EXOR gate including first and second inputs respectively coupled to outputs of first and second corresponding storage elements, and an output coupled to an input of a third corresponding storage element; and

an inverter coupled between an output of one storage element and an input of another storage element.

wherein the first and second storage elements corresponding to each of the two or more EXOR gates are spaced apart from each other in the code-producing series by respective different numbers of storage elements, each of the respective different numbers being a prime number.

Claim 12 (Previously Presented): The code generator according to claim 11, further comprising:

logic gates respectively associated with each of the two or more EXOR gates, each logic gate including a first input coupled to the output of the second storage element corresponding to the associated EXOR gate and an output coupled to the second input of the associated EXOR gate.

Claim 13 (Previously Presented): The code generator according to claim 12, wherein each logic gate includes a second input coupled to an output of a corresponding code-programming storage element.

Claim 14 (Canceled).

Claim 15 (Previously Presented): The code generator according to claim 11, further comprising:

one or more circuits for selectively enabling and disabling one or more of the EXOR gates.

Claim 16 (Previously Presented): The code generator according to claim 11, wherein the third storage element corresponding to one of the EXOR gates is the storage element in the code-producing series immediately following the first storage element corresponding to that same one of the EXOR gates.

Claim 17 (Currently Amended): A [[The]] code generator ~~according to claim 11~~ comprising:

storage elements arranged in a code-producing series in which an output of a last storage element in the series is coupled to an input of a first storage element in the series;

two or more EXOR gates, each EXOR gate including first and second inputs respectively coupled to outputs of first and second corresponding storage elements, and an output coupled to an input of a third corresponding storage element; and

an inverter coupled between an output of one storage element and an input of another storage element,

wherein the number of storage elements in the code-producing series is a prime number.

Claim 18 (Previously Presented): A system comprising one or more code generators according to claim 11.

Claim 19 (Currently Amended): A code generator comprising:

storage elements arranged in a code-producing series in which an output of a last storage element in the series is coupled to an input of a first storage element in the series; and

two or more logic gates, the logic gates including an EXOR and an EXNOR gate each of which includes first and second inputs respectively coupled to outputs of first and second corresponding storage elements and an output coupled to an input of a third corresponding storage element,

wherein the number of storage elements in the code-producing series is a prime number.

Claim 20 (Previously Presented): A system comprising one or more code generators according to claim 19.

Claim 21 (New): The code generator according to claim 1, wherein the different prime number that is greater than 1 does not constitute a partial amount of the overall number of storage element connected in series.